

However, where first and second predicted descriptors resulting from application of different models are not in agreement, a different output may be produced that reflects uncertainty in process state. This reflection may be in the form of the content of the output (i.e. a process fault may be indicated) and/or in the form of the output (i.e. only an email is sent to the human user to indicate a lower priority issue.)

As an alternative approach, a second knowledge based system may be consulted to resolve a conflict in predicted descriptors from different models. An output based upon the descriptor chosen by the second knowledge based system would then produced.

A wide variety of structures may be utilized to detect process characteristics and/or modify operational process parameters. Data may be received from a system in a variety of formats, such as text, still image, moving video images, and sound. Fig. 3B is a simplified diagram of a top-view 300 of an information capturing device according to an embodiment of the present invention. This diagram is merely an example which should not limit the scope of the claims herein. One of ordinary skill in the art would recognize many other variations, modifications, and alternatives.

As shown in Fig. 3B, the top view diagram includes an array of sensors, 351A, 351B, 301C, 359nth. The array is arranged in rows 351, 352, 355, 357, 359 and columns, which are normal to each other. Each of the sensors has an exposed surface for capturing, for example, olfactory information from fluids, e.g., liquid and/or vapor. The diagram shown is merely an example of an information capturing device. Details of such information capturing device are provided in U.S. Application No. 09/518,179, which is now U.S. No. <sup>Patent</sup> 6,422,061 (Attorney Docket No. 18564I-003810), commonly assigned, and hereby incorporated by reference for all purposes. Other devices can be made by companies such as Aromascan (now Osmetech), Hewlett Packard, Alpha-MOS, or other companies.

Although the above has been described in terms of a capturing device for fluids including liquids and/or vapors, there are many other types of capturing devices. For example, other types of information capturing devices for converting an intrinsic or extrinsic characteristic to a measurable parameter can be used. These information capturing devices include, among others, pH monitors, temperature measurement devices, humidity devices, pressure sensors, flow measurement devices, chemical detectors, velocity measurement devices, weighting scales, length measurement devices, color identification, and other devices. These devices can provide an electrical output that